National Imagery and Mapping Agency

28 February 1997 ~~July 20, 1994~~
NSIA-TBD~~CIO-ASD-SIA-0594-0000~~
Version 1.1~~1.0~~

United States Imagery and Geospatial Information System Standards Profile for Imagery Access ~~Archives~~

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Section 1
INTRODUCTION

1.1 Introduction~~General~~

This Standards Profile for Imagery Access~~Archives~~ is one in a series of standards profiles being developed for interoperability of elements comprising the United States Imagery and Geospatial System (USIGS). This profile addresses ~~both~~ information ~~and communications services that is~~are ~~necessary~~ to support the storage, discovery~~query~~, ~~location,~~ and retrieval of imagery from digital product libraries~~archives~~. Thise profile provides definitions of applicable terminology, references, ~~rationale, concept of operations,~~ and identification of the recommended standard data directory elements.

1.2 Scope

This standards profile is intended for use by developers who are responsible for upgrading legacy systems or developing new imagery libraries~~archives~~ compliant with the USIGS~~USIS~~ architecture. It includes data elements of a common data directory that are being modeled and standardized within the Defense Data Dictionary System (DDDS)~~, Standard Query Language (SQL) commands for accessing data, and a data transfer method~~. The data element definitions in Section 4 ~~paragraph 4~~ address imagery and standard imagery products.

~~1.3 References~~

~~The following documents are cited in this profile.~~

~~ANSI X3.135-1989, Database Language - SQL~~

~~CIO Imagery Requirement Structure (IRS) Reference Manual~~

~~CMX-MP-4.01/4, National Exploitation Reporting: Control and Management (NERCM), Feb 92~~

~~Defense Airborne Reconnaissance Master Plan~~

~~DIAM 57-5-1, DoD Exploitation of Multi-Sensor Imagery (First and Second Phase Reporting)~~

~~DIAM 57-5-4, Intelligence Processing, DoD Intelligence Report Formats, 28 Feb 90~~

~~DIAM 65-3-1, Standard Coding Systems Functional Classification Handbook~~

~~DIAM 65-18, Geo-political Data Elements - Related Features~~

~~DIAM 65-19, Standard Security Markings~~

~~DoDIIS Profile of the DoD Technical Reference Model for Information Management, May 1993~~

~~FIPS Pub 10-3, Countries, Dependencies, Areas of Special Sovereignty and their Principal Administrative Divisions~~

~~FIPS PUB 127-1, Database Language - SQL~~

~~File Transfer Protocol, FTP MIL STD 1780~~

~~FSTC Foreign Numbering System Guide~~

~~Military Intelligence Integrated Data System (MIIDS) and Integrated Data Base (IDB) Definition and Specification Document Data Element Catalog Part II Volumes 1 and 2, DDB-2600-4537-90, July 1990 and XI-DBDD-08-93-C0, August 1993.~~

~~NITF Version 2.0, MIL-STD-2500, 18 June 93~~

~~TCP/IP, MIL STD 1778/1777~~

1.3 Applicability

This profile is applicable to all systems which access USIGS~~USIS~~ libraries~~archives~~. It addresses methods for the storage and retrieval of imagery products in libraries~~archives~~ accessible by users at the lowest echelon. This profile is written for program development offices developing image library~~archive~~ applications for use by n~~N~~ational, theater, and tactical users.

1.4 Document Structure

This document consists of four sections and two appendices. Section 1 provides introductory information. Section 2 lists the applicable documents. Section 3 describes the rationale, definitions and concepts applicable to the Standards Profile for Imagery Access (SPIA). Metadata for specific SPIA data elements is detailed in Section 4. Appendix I consists of a series of tables which provide domain values for SPIA elements having a large number of such values.Appendix II covers the standard data elements necessary for the cataloging and retrival of ONI Amidships imagery. Appendix III contains the initial set of core standard data elements to be used for the cataloging and retrival of analog video. Appendix IV contains a table which lists all SPIA data elements in alphabetical order and maps these elements to the tables in Section 4 which fully describe the elements.

~~1.5 Conformances~~

~~TBD~~

~~1.5 Test Methods~~

~~TBD~~

Section 2
APPLICABLE DOCUMENTS

The following documents are cited in this profile.

Executive Order 12951, Release of Imagery Acquired by Space-Based National Intelligence Reconnaissance Systems, 22 February 1995.

Executive Order 12958, *Classified National Security Information*, 17 April 1995, as amended 18 September 1995

USIS Standards & Guidelines (CIO-2008), 12 April 1996

USIS Directive 2-1.1, *Exploitation and Reporting Structure (EARS)* (CIO-3P-005-95): *Electronic Reporting (EARS-1.1)*, 9 February 1995, Change Notice 02

USIS Standards Profile For Imagery Distribution (SPID) (CIO-2019), Version 3, October 1995

The Digital Geographic Information Exchange Standard (DIGEST), Edition 1.2, January 1994

~~ANSI X3.135-1989, Database Language - SQL~~

~~CIO~~ *Imagery Requirement Structure (IRS) Reference Manual*, (CIO-3-004-94). June 1994

~~CMX-MP-4.01/4, National Exploitation Reporting: Control and Management (NERCM), Feb 92~~

1993 Defense Airborne Reconnaissance Master Plan (TCS804720-92)

DIAM 57-5-1, *DoD Exploitation of Multi-Sensor Imagery (First and Second Phase Reporting)*

~~DIAM 57-5-4, Intelligence Processing, DoD Intelligence Report Formats, 28 Feb 90~~

DIAM 65-3-1, *Standard Coding Systems Functional Classification Handbook*

DIAM 65-18, *Geo-political Data Elements - Related Features*

DIAM 65-19, *Standard Security Markings*, July 1984, through Change Number 89-H

~~DoDIIS Profile of the DoD Technical Reference Model for Information Management, May 1993~~

FIPS Pub 10-~~3~~4, *Countries, Dependencies, Areas of Special Sovereignty and their Principal Administrative Divisions*, 1995 April

~~FIPS PUB 127-1, Database Language - SQL~~

~~File Transfer Protocol, FTP MIL-STD 1780~~

FSTC *Foreign Numbering System Guide*

Modernized Integrated Database (MIDB) *Element Database Design Dictionary*, 3 June 1996 Release (Softcopy)~~Military Intelligence Integrated Data System (MIIDS) and Integrated Data Base (IDB) Definition and Specification Document Data Element Catalog Part II Volumes 1 and 2, DDB-2600-4537-90, July 1990 and XI-DBDD-08 93-C0, August 1993.~~

MIL-STD_2500A, *National Imagery Transmission Format (NITF)*, Version 2.0, 12 October 1994 as amended by RFC 96-025~~NITF Version 2.0, MIL-STD 2500, 18 June 93~~

ANSI/SMPTE 12M-1995, *SMPTE Standard for Television, Audio and Film - Time and Control Code*, dated September 12, 1995

Common Management Practices for the System of Image Product Archives (CMP SIPA), Draft, Revision 1 (R1), dated 31 August 1995

~~TCP/IP, MIL-STD 1778/1777~~

Section 3
PROFILE DESCRIPTION

3.1 Overview and Rationale

The purpose of this section is to explicitly state the requirements for developing an open systems imagery library system~~archive~~ for the USIGS~~USIS~~. The Standards Profile for Imagery Access defines the data elements ~~and information services~~ used in accessing data stored in an imagery library~~archive~~.[1]

~~The inclusion of a standard in this profile does not imply that all aspects of the standard are used in the imagery archive. For instance, paragraph 3.1.1 (Database Services) defines a subset of SQL commands to be used in product archive operations. Only those portions of the SQL standard (ANSI X3.135-1989, FIPS PUB 127-1) related to those commands apply to the product archive.~~

Data elements listed in Tables 4-1 through 4-7 were derived from data elements defined in the DDDS, the Modernized Integrated Database (MIDB), the National Imagery Transmission Format (NITF), the USIS Standards Profile for Imagery Distribution (SPID), ~~MIIDS/IDB, MIL STD 2500,~~ and selected current operational systems. These data elements are a logical representation of the minimal information required to store and retrieve the various types of imagery and imagery products maintained by the imagery libraries~~archives~~ of the USIGS~~USIS~~.

To be compliant with this standards profile, an imagery library~~archive~~ ~~and the client server~~ must be capable of performing storage and retrieval of imagery and related data using only data elements described herein. Although not all libraries will use every data element listed herein, those used must be compliant with this standard. Mandatory data elements required for the inclusion of product in an imagery geospatial library are identified in Section 3.3.2. All data elements within this standard are registered or in the process of being registered with the Defense Data Dictionary System (DDDS). The DDDS standardizes data elements across all areas of the DoD so that all systems will eventually exchange standardized data. This profile is not meant to contain all data elements relating to imagery and imagery products, only those used for the storage, discovery, and retrieval of imagery. Standards profiles for exploitation, integrated management, collection and processing will define the data elements necessary for other functional areas of USIGS. Additional data elements and storage and retrieval mechanisms are permitted but they will not be considered when determining compliance with this profile.

3.2 Definitions

The terminology defined in the following subparagraphs applies to the USIGS~~USIS~~.

[1] **It includes the recommendations of the Directory Data Task Force, established in March of 1993, to help define a common data directory.**

Library~~Archive~~: A data storage system which maintains a large volume of current and historical data for access by information users.

~~**COTS:** Commercial Off-The-Shelf~~

Directory: A tool that contains formatted summary information about data.

Directory Data: Data that is stored in a directory that uniquely identifies a single item stored in a~~n~~ library~~archive~~.

Imagery Library~~Archive~~: The Imagery Library~~Archive~~ is the combination of; file server computing platform, file server storage, Library~~Archive~~ Server Application, Library~~Archive~~ Directory, Library~~Archive~~ File Server, Library~~Archive~~ Client Application, ~~General Purpose Workstation,~~ and Library~~Archive~~ Client.

Product: The results of exploitation and analysis of USIGS~~USIS~~ imagery and imagery derived data, documented in electronic or physical media. May include original imagery, pictures, text, audio, video and/or graphics data. Also includes database entries.

Profile: A set of one or more base standards, and, where applicable, the identification of chosen classes, subsets, options, and parameters of those base standards necessary for accomplishing a particular function.

3.3 Concept

3.3.1 USIGS~~USIS~~ Library~~Archive~~ Concept

A network of interoperable libraries~~archives~~, accessible to all users, is integral to future USIGS~~USIS~~ architecture. All USIGS~~USIS~~ imagery, imagery products, and supporting data will eventually be available through this network. To meet this objective, network libraries~~archives~~ and associated applications must adhere to clearly defined standards and guidelines for storage, discovery, retrieval, and transmission of all imagery, products and data.

3.3.2 Mandatory Data Elements

At a minimum the following five SPIA data elements are mandatory for the storage, discovery, and retrival of imagery and geospatial products in USIGS libraries.

- CLASSIFICATION (Additional elements will be required if the product is classified)
- PRODUCER CODE
- PRODUCT FILE SIZE (Calculated by the library application if not provided by the user)

- PRODUCT SHORT NAME
- TIME OF COLLECTION

Details on these elements are provided in the tables in Section 4. In addition, the Element Description column indicates which elements are required for NITFS transmission of products.

3. 3. 1 Imagery Library Archive

An imagery archive supports the storage, retrieval and management of imagery product files. It is a modular component that can be integrated into an open imagery information systems environment. It supports a product directory containing a set of standard data elements describing stored products, and a set of user and maintenance applications.

The imagery archive operates in a client/server mode in an open system environment. Client applications retrieve directory data using standard query language requests that comply with FIPS PUB 127-1, Database Language - SQL. The standard data elements described in paragraph 4 complete the guidance on the formation of client data queries.

Among the directory data elements is an access identifier for use by the standard file transfer mechanism. When a user directs client applications to request transfer of a product file, the application uses this identifier in the standard product transfer command described in paragraph 3.1.2. The server accepts new product files through the same standard file transfer mechanism.

3. Standards Profile for Imagery Archive

3.1 Information Services

The information service area of the USIS Standards Profile identifies two services: database and data interchange. The following paragraphs discuss each.

3.1.1 Database Services

This section addresses database services that are used to access imagery product archives. The database services discussed in this section, are defined in the Data Management Services section, section 2.3, of the DoDIIS Profile.

The following commands provide a user, who does not have privilege to update the database, the ability to retrieve archive information:

SELECT

Retrieve data about specific products.

The following commands provide a user, who has privilege to update the database, the ability to retrieve, modify, and insert archive information:

INSERT
Insert new data into an archive.
SELECT
Retrieve data about specific products.
UPDATE
Update directory data contained within a archive.

3.1.2 Data Interchange Services

Transmission of product data is accomplished with the File Transfer Protocol, FTP. All imagery data descriptions and format protocols must comply with NITFS v2.0.

3.2 Communications Services

3.2.1 Network Services

Network services will be handled via TCP/IP.

Section 4
DATA ELEMENT DEFINITIONS

Data element definitions are provided in Tables 4-1 through 4-7 below. SPIA data elements have been divided into generic subject areas. These subject areas are guidelines only and should not be construed as implementation guidance. The areas are:

- Table 4-1, Imagery related elements
- Table 4-2, Product related elements
- Table 4-3, Security Classification related elements
- Table 4-4, Target related elements
- Table 4-5, Equipment related elements
- Table 4-6, Event related elements
- Table 4-7, Person related elements

Permissible or domain values for data elements which are lengthy are provided in Appendix I. Appendix IV contains a table which lists all SPIA data element names in alphabetical order and maps the elements to the tables in this section.

Table 4-1 SPIA Imagery Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLEPERMISSABLE VALUES
ANGLE TO NORTH	ANGLETO NORTH	IntN	3	Angle in degrees from the first row of the image to true north. Required for NITFS if ESD = Y .	000-359
BITS PER PIXEL PER BAND	ABPP	IntN	2	Maximum number of significant bits for the value in each band of each pixel without compression.	1 to 16
CAMERA SPECS	CAMSPECS	CharA/ N/ Special	1-32	Specifies the brand name of the camera used, and the focal length of the lens.	Known camera names and focal lengths in millimeters.
CLOUD COVER	CLOUDCVR	IntN	3	Indicates the percentage of the image that is obscured by cloud cover.	000 to 100 999 = Unknown
COMPLIANCE LEVEL	CLEVEL	IntN	2	Identifies the NITF value required to fully interpret the NITF file. Required for NITFS.	01 to 06 and 99
COMPRESSION GENERATION	COMGEN	IntN	2	Counts the number of lossy compressions circles performeddone by the Imagery Archive.	00-99
EXPLOITATION SUPPORT DATA	ESD	CharA	1	Indicates whether or not Exploitation Support Data (ESD) is available and contained within the product data.	Y = Yes, N = No
GENERATION	GENERATION	N	1	Specifies the number of image generations of the product. The number (0) is reserved for the original product.	An assigned numeric value between (0 and 9).
IMAGE CATEGORY	ICAT	CharA	2-8	Identifies the specific category of imagery (often revealing the nature of the collector or intended use), raster or grid data. Required for NITFS.	See Table 10-3
IMAGE COLUMNS	NCOLS	IntN	8	Contains the total number of columns of pixels in the image. Required for NITFS.	00000000 to 99999999

Table 4-1 SPIA Imagery Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLEPERMISSABLE VALUES
IMAGE COORDINATE SYSTEM	ICORDS	CharA	1	Indicates the geo-referenced coordinate system for the image. Required for NITFS.	U = UTM, G = Geodetic, C = Geocentric, N = None.
IMAGE DATUM	IDATUM	Char	3	Identifies the mathematical representation of the earth used to geocorrect/orthorectify the image. (Identifies the Datum associated with IGEOLO)	The domain values listed in the DDDS for data element Horizontal-Reference-Datum-Code.
IMAGE ELLIPSOID	IELLIP	Char	3	Identifies the mathematical representation of the earth used to geocorrect/orthorectify the image. (Identifies the Ellipsoid associated with IGEOLO.)	As defined in DIGEST, Part 3, Table 8-1. See Table 10-4.

Table 4-1 SPIA Imagery Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
IMAGE GEOGRAPHIC LOCATION	IGEOLO	Int~~A/N~~	60	Specifies the geographic locations in latitude and longitude in decimal degrees of the four corner points of an image.	If the Image Coordinate System field ICORDS value is not N, this field shall contain a valid geographic location, in terms of corner locations, of the image in the coordinate system specified in the ICORDS field. The locations of the four corners of the (significant) image data shall be given in image coordinate order: (0,0), (0, MaxCol), (MaxRow, MaxCol), (MaxRow, 0). MaxCol and MaxRow shall be determined from the values contained, respectively, in NCOLS and NROWS as MaxCol = NCOLS - 1 and MaxRow = NROWS - 1. Valid corner locations in geodetic and geocentric coordinates shall be expressed as latitude and longitude in decimal degrees. The format is ~~±~~dd.ddd~~±~~ddd.ddd~~ddmmssXdddmmssY~~ (four times) - where ±dd.ddd equals latitude ("+" is northern hemisphere and "-" is southern hemisphere) and ±ddd.ddd equals longitude ("+" is eastern hemisphere and "-" is western hemisphere). ~~X = N or S for north or south, and Y = E or W for east or west or ggXYZmmmmmmmmmm (four times) if UTM.~~ (Null is not calculable).
IMAGE ID	IMAGEID	Char~~A/N~~	1-6040	A system dependent unique image identifier assigned by the collection system or producer.	National, Tactical, Civil, Commercial, or Handheld Image ID's.
IMAGE PROCESSING LEVEL CODE	PREPROC	Char	2	Identifies the level of radiometric and geometric processing applied to the product by the commercial vendor.	See Table 10-5
IMAGE PROJECTION SYSTEM	IPROJ	Char	2	Identifies the 2D map projection used by commercial vendors to geocorrect/orthorectify the image.	As defined in DIGEST, Part 3, Table 6-1. See Table 10-6.
IMAGE REPRESENTATION	IREP	Char~~A~~	1-8	Identifies the general kind of image represented by the data. Used in conjunction with the ICAT field. Required for NITFS.	See Table 10-7

Table 4-1 SPIA Imagery Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLEPERMISSABLE VALUES
IMAGE ROWS	NROWS	IntN	8	Contains the total number of rows of pixels in the image. Required for NITFS.	00000000 to 99999999
LICENSE	LIC	Char	1-50	Indicates government organizations that have legal authority to use the image in accordance with provisions specified in the contract between the purchaser and commercial vendor.	See Table 10-8. Multiple entries separated by a comma may be used.
MEAN GSD	MEANGSD	IntN	75	The geometric mean of the across and along scan center-to-center distance between contiguous ground samples. Required for NITFS if ESD = Y.	00000.0 to 99999.9000.0 to 999.9. Expressed in inches, accuracy = 10%.
MISSION NUMBER	MSNNUM	CharA/ N/ Special	1-7	Identifies the mission number assigned to the reconnaissance mission.	As defined by EARS-1.1DIAM 57-5-4 or NERCM.
NATIONAL IMAGE INTERPRETABILITY RATING SCALE	NIIRS	IntN	3	Specifies the image quality based on the National Imagery Interpretability Rating Scale (NIIRS). Required for NITFS if ESD = Y.	0.0 to 9.9
NUMBER OF BANDS	NBANDS	IntN	1	Number of bands comprising the image.	1 to 9
OBLIQUITY ANGLE	OBLANGLE	IntN	5	Obliquity angle of image expressed in degrees. Accuracy = 0.6 degrees. Required for NITFS.	00.00 to 90.00
OTHER CONDITIONS	OTHERCOND	CharA	2	Indicates other conditions which affect the imagery over the target.	See Table 10-11
PLATFORM IDENTIFICATION	PLATID	Char	1-14	Unique identifier of a commercial collection platform.	See Table 10-12
PROJECT ID CODE	PROJID	CharA	2	Identifies collection platform project identifier code.	As defined in EARS-1.1DIAM 57-5-4, the code may be derived from various DIA reconnaissance program directives or EARS-1-1ADIAM 57-5-1.
RPC	RPC	CharA	1	Indicates whether or not Rapid PositioningPostioning Capability (RPC) data is available and contained within the product data.	Y = Yes, N = No

Table 4-1 SPIA Imagery Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
SATELLITE TRACK	SATTRACK	Int	8	Identifies location of an image acquired by LANDSAT or SPOT (only) along the satellite path.	Minimum values: PATH(J)=0001 ROW(K)=0001 Maximum values: PATH(J)=9999 ROW(K)=9999 (Recorded as PATH/ROW = 00010001 to 99999999
SENSOR MODE	SENSMODE	Char~~A/N~~	1-12	Identifies the sensor mode used in capturing the image.	See Table 10-14
SENSOR NAME	SENSNAME	Char~~A/N/Special~~	1-18	Identifies the name of the sensor used in capturing the image.	As defined in the 1993 Defense Airborne Reconnaissance Master Plan (TBR). See Table 10-15 for commercial sensors.
SOURCE	SOURCE	Char~~A/N/Special~~	1-255	Identifies where the image came from (e.g., Magazine, Trade Show, etc.).	User Defined
STANDARD RADIOMETRIC PRODUCT	SRP	Char~~A/N~~	1	Indicates whether or not standard radiometric product data is available in the archive.	Y - Yes, N - No
STEREO ID	STEREOID	Char~~A/N~~	1-40	Identifies the complimentary image of a stereo pair. Repeats up to 3 times.	National and tactical image ID's.
SUBJECTIVE QUALITY	SUBQUAL	Char~~A/N~~	1	Indicates a subjective rating of the quality of a hand held or airborne ~~the~~ image.	P- POOR, F- FAIR, G- GOOD, E- EXCELLENT
SUN AZIMUTH	SUNAZ	Int~~N~~	5	Sun azimuth in degrees measured clockwise from true north.	000.0 to 359.9
SUN ELEVATION	SUNEL	Int~~N~~	5	Sun elevation in degrees measured from the target plane at intersection of the optical line of sight with the earth's surface.	-90.0 to 90.0
TIME OF COLLECTION	TIMECOLL	Char~~A/N~~	~~8~~6 or 14	Indicates the date or the date and time (Zulu) an image was captured by a collector. Date mandatory across all product types.	CCYYMMDDHHMMSS~~DDHHMMSSZMONYY~~ - Zulu time. If security levels prohibit the knowledge of when an image was taken, the time characters should be filled in with spaces.

Table 4-2 SPIA Imagery Product Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLEPERMISSABLE VALUES
ACCESS ID	ACCESSID	CharA/N/Special	1-64	Contains an library archive-unique identifier. This could be the product filename, a record identifier, a reference number, the product id, or any other means to access the product from the library archive.	User Defined
ASSOCIATED REPORT	ASSRPT	CharA/N	1-20	Any other known report associated with the product. Repeating.	Valid report number.
ASSOCIATED TEXT	ATEXT	CharA/N/Special	1-255	Text further describing the imagery product. Repeating.	User Defined
FM CONTROL NUMBER	FMCONTROL	CharA/N/Special	1-32	Identifies foreign material associated with the product.	TBR-NGICAs specified in the FSTC Foreign Numbering System Guide.
KEYWORD	KEYWORD	CharA/N/Special	1-255	Provides a freeform text description of the product. Repeating.	User Defined
MAP ID	MAPID	CharA/N	1-40	IdentifiesIndentifies a map associated with the product.	User Specified
PAGE/PART NUMBER	PPNUM	CharA/N/Special	1-5	Indicates the page/part number of the product.	Any valid page or part number.
PRODUCER CODE	PRODUCERCD	CharA	2	Identifies the organization responsible for creating or modifying the product. Mandatory across all product types.	List maintained by DIA/CL-2D.As defined in Appendix F of CIO's Imagery Requirement Structure (IRS) Reference Manual.
PRODUCER SUBELEMENT	PRODUCERSE	CharA/N	1-6	Identifies the element within the producing organization that created the product.	User defined.
PRODUCT CODE	PRODCODE	CharA/N	2	Identifies the reporting product code for the product stored in the archive.	As defined in EARS-1.1Appendix 6, NERCM.

Table 4-2 SPIA Imagery Product Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
PRODUCT CREATE TIME	PRODCRTIME	Char~~A/N~~	8~~6~~ or 14	Identifies the date or the date and time (Zulu) that the product was created or last modified.	CCYYMMDDHHMMSS~~DDHHMMSSZMONYY~~ - Zulu time. If security levels prohibit the knowledge of product creation time, the time characters should be filled with blank spaces.
PRODUCT FILE SIZE	PRODFSIZE	Int~~N~~	12	Identifies, to an order of magnitude, the size of the file in bytes. Mandatory across all product types. Required for NITFS.	000000000000 to 999999999999
PRODUCT FORMAT	PRODFMT	Char~~A/N~~	4-9	Indicates this file is formatted using a specific version of NITFS, or TIFF or Sun Raster formats. Required for NITFS.	NITFNN.NN Valid values are NITF01.10 and NITF02.00. Also TIFF or Sun Raster .
PRODUCT ID NUMBER	PRODIDNO	Char~~A/N~~	1-20	Identifies a product stored in the archive with a producer assigned number.	Valid producer assigned product number.
PRODUCT SHORT NAME	PRODSNME	Char~~A/N~~	2-10	Identifies the abbreviated name of a product stored in the archive. Mandatory across all product types.	See Table 10-13 ~~To be published in a CIO memorandum.~~
PRODUCT TITLE	PRODTITLE	Char~~A/N~~	1-50	Identified the title of the product as assigned by the producing organization.	Valid product title - User defined.
REQUESTING ORGANIZATION	REQORG	Char~~A/N~~	1-64	Identifies the organization requesting that an imagery product ~~image~~ be placed in an archive. Repeating.	Producer code(s) if available; otherwise organization(s) name.
SECTION TITLE	SECTITLE	Char~~A/N~~	1-40	Identifies the title of a section of a multi-section product.	User defined valid section titles.
SUBJECTIVE DETAIL	SUBDET	Char~~A/N~~	1	Indicates a subjective rating of useful detail available in the product.	P- POOR, F- FAIR, G- GOOD, E- EXCELLENT
TOTAL PAGES/PARTS	TPP	Int~~N~~	3	Indicates the total number of parts or pages associated with PPNUM.	001 to 999

Table 4-3 SPIA Security Classification Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
AUTHORITY	AUTHORITY	Char~~A/N~~	40~~1-20~~	Classification authority for the product.	One of the following: - Original classification authority name and position or personal identifier if AUTHORITY TYPE is O. - Title of document or security classification guide used to classify item if authority type is D - Deriv-Multiple if AUTHORITY TYPE is M. (Indicates multiple sources used with originator maintaining record of sources used on file or record copy.) - DCI if AUTHORITY TYPE is I. ~~Valid code in accordance with the regulations governing the appropriate security channel(s).~~
AUTHORITY TYPE	AUTHTYP	Char	1	Indicates type of authority used to classify the product	O - Original classification authority D - Derivative M - Derivative from multiple sources I - Imagery as defined in E.O. 12951
CLASSIFICATION	CLASS	Char~~A~~	1	Indicates the classification level of the product. Mandatory across all products. Required for NITFS.	T - TOP SECRET S - SECRET C - CONFIDENTIAL R- RESTRICTED - Non-U.S. classification systems only. U - UNCLASSIFIED
CLASSIFICATION REASON	CLASSRSN	Char	1	Indicates the reason for classifying the product.	A through G for original classification per E.O. 12958, Section 1.5.(a) through (g) for original classification. Blank if unclassified, derived classification, or classified under a non-U.S. system.
CLASSIFICATION SYSTEM	CLASSYS	Char	2	Indicates the national classification system used in classifying the product.	Country Codes per FIPS 10-4 for nations and codes per DIAM 65-18 for multi-national entities.

Table 4-3 SPIA Security Classification Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
CLASSIFICATION TEXT	CLASTXT	Char	44	Provide additional information about classification to include identification of a declassification or downgrading event. May also be used to identify multiple sources and/or any other special handling rules.	User defined.
CODEWORDS	CODEWORDS	Char~~A/N~~	11~~1-40~~	Security compartments associated with the product.	Codeword tri/digraphs and/or codes per DIAM 65-19, Data Standard No. 3 (TBR).~~Diagraphs from DIAM 65-19/supplements, trigraphs from DIAM 65-19, and complete codewords or project numbers.~~
CONTROL	CONTROL	Char~~A/N~~	2~~1-40~~	Special handling instructions and caveats associated with the product.	Codes per DIAM 65-19, Data Standard No. 3 (TBR). ~~Diagraphs from DIAM 65-19/suppliments, and complete words/abbreviations of more than two characters~~
DECLASSIFICATION TYPE	DECLASTYP	Char	2	Indicates type of declassification or downgrading action to be taken or reason file is exempt from declassification.	DD - declassify on a specific date as indicated in DECLASSIFICATION DATE. DE - declassify upon occurrence of the event described in CLASSIFICATION TEXT. GD - downgrade to specified level on date as indicated in DOWNGRADE and DOWNGRADE DATE. GE - downgrade to specified level upon occurrence of event described in CLASSIFICATION TEXT. O - OADR X - exempt from automatic declassification per DoD 5200.1-R, para 5-204.
DECLASSIFICATION DATE	DECLASSDTE	Char	8	Date when file is to be declassified.	YYYYMMDD

Table 4-3 SPIA Security Classification Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
DECLASSIFICATION EXEMPTION	DECLASXMP	Char	4	Indicates reason product is exempt from automatic declassification.	X1 through X8 per DoD 5200.1-R, paras 4-202b(1) through (8) for material exempt from the 10-Year rule. (Entry showing up to two reasons - e.g. X1,5 - is allowed) X251 through 9 per DoD 5200.1-R, paras 4-301a(1) through (9) for permanently valuable materials exempt from the 25-year declassification system.
DOWNGRADE	DWNGRD	Char	1	Level to which a file is to be downgraded.	S - Secret C- Confidential R - Restricted
DOWNGRADE DATE	DWNDTE	Char	8	Date when file is to be downgraded to level indicated in DOWNGRADE.	YYYYMMDD
FILE CONTROL NUMBER	FCNTLNR	Char	15	The file security control number	User defined
RELEASE	RELEASE	Char~~A/N~~	20~~1-40~~	Indicates the countries and/or country grouping (e.g. NATO) to which product is authorized for release.	Country Codes per FIPS 10-4 for nations and codes per DIAM 65-19 for multi-national entities. (TBR) ~~CountryDiagraphs from DIAM 65-18~~
SOURCE DATE	SRCEDTE	Char	8	Date of the source used for derivative classification. In the case of multiple sources, the date of the latest source.	YYYYMMDD
~~DOWNGRADING~~	~~DWNG~~	~~A/N~~	~~6~~	~~Indicates the point in time at which declassification or downgrading action is to take place.~~	~~In accordance with DIAM 65-19, the possible values are, (1) the calender date in the format YYMMDD, (2) the code "999999" when the originating's agency determination is required (OADR), and (3) the code "999998" when a specific event determines at what point declassification or downgrading is to take place.~~
~~DOWNGRADING EVENT~~	~~DWNGEVENT~~	~~A/N~~	~~1-40~~	~~The event causing a security downgrade. (Applicable when DWNG equals "999998").~~	~~Valid event in accordance with DIAM 65-19.~~

Table 4-4 SPIA Target Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
CATEGORY	CAT	Int~~N~~	5	Classifies a target element by its product or the type of activity in which it can engage. Repeating.	10000-99999. As defined in DIAM 65-3-1 (Functional Classification Handbook).
COUNTRY CODE	CTRYCD	Char~~A~~	2	Identifies the country in which the geographic coordinates of the target element reside. Repeating.	As defined in ~~DIAM 65-18 and~~ FIPS 10-~~43~~.
DATUM	DATUM	Char~~A~~	3	Identifies the datum of the map used to derive the target coordinates~~ (UTM or GEO)~~. Repeating	Domain values as listed in the DDDS for data element Horizontal-Reference-Datum-Code.~~In accordance with Appendix B, Attachment 10, XI DBDD 08 93 CO Aug 93.~~
PERCENTAGE OF COVERAGE	PERCOVER	Int~~N~~	3	Percent of the target covered by the image. Repeating.	000 to 100
~~TARGET GEOGRAPHIC COORDINATES~~	~~TGTGEO~~	~~A/N~~	~~15~~	~~Specifies a point target's geographic location in latitude and longitude. Repeating.~~	~~dddmmssXdddmmssY - where dddmmssX represents degrees, minutes, and seconds of lattitude with X = N or S for north or south, and dddmmssY represents degrees, minutes, and seconds of longitude with Y = E or W for east or west.~~
TARGET ID	TGTID	Char~~A/ N/ Special~~	6, 10, 15	Used to describe a point target or an area target (DSA, LOC or BAS). Repeating.	If a point target: 10 character BE (nnnnxxxnnn) or 15 character target ID consisting of a 10 character BE plus the 5 character Originator (O)~~BE~~ Suffix (xxnnn). For definitions of BE and O~~BE~~ Suffix see MIDB~~MIIDS/IDB~~ documentation. If an area target, enter the 6 character area target identifier: annnnn. For area target Identifier: a = B, for Special Broad Area Search (BAS) targets C, for BAS Standing Cluster D, for Directed Search Area (DSA) targets E, for Line of Communication (LOC) targets S, for Standing BAS nnnnn = 00001-99999.

Table 4-4 SPIA Target Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
TARGET LATITUDE	TGTLAT	Int	10	Specifies a point target's geographic location in latitude (in decimal degrees). Repeating.	~~+~~dd.dddddd - where "+" is northern hemisphere and "-" is southern hemisphere. (NOTE: Provide the value only to the decimal places (precision) warranted by the sources and methods used to determine the location.)
TARGET LONGITUDE	TGTLON	Int	11	Specifies a point target's geographic location in longitude (in decimal degrees). Repeating.	~~+~~ddd.dddddd - where "+" is eastern hemisphere and "-" is western hemisphere. (NOTE: Provide the value only to the decimal places (precision) warranted by the sources and methods used to determine the location.)
TARGET NAME	TGTNAME	Char~~A/N/Special~~	38	Identifies the official name of the target element based on the MIIDS/IDB name. Repeating.	Target name usually starts with the BGN- approved place name.
~~TARGET UTM COORDINATES~~	~~TGTUTM~~	~~A/N~~	~~15~~	~~Identifies the Universal Transverse Mercator (UTM) grid coordinates that equate to the geographic coordinates of the target element. Repeating.~~	~~XXXNNnnnnn*nnnnn* where XXX = 3 alphanumeric 6x8 degree UTM zone, NN = 2 numeric characters representing the 100,000 meter square, nnnnn = 5 easting numerics, and *nnnnn* = 5 northing numerics.~~

Table 4-5 SPIA Equipment Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
COUNTRY PRODUCED	CTRYPROD	Char~~A~~	2	Identifies the country that produced the object.	Country codes as defined in ~~DIAM 65-18 and~~ FIPS 10-4~~3~~.
COUNTRY CODE DESIGNED	CTRYDSN	Char~~A~~	2	Identifies the country that designed the original object. Repeating.	Country codes as defined in ~~DIAM 65-18 and~~ FIPS 10-4~~3~~.
EQUIPMENT CODE	EQPCODE	Char~~A/ N~~	1-7	A unique designated equipment code identifying a category of equipment. Repeating.	As defined in MIDB Element Database Design Dictionary. List of values maintained by DIA/POI.~~DDB-2600-4040-YR, Defense Intelligence Equipment Index (U). Ref MIIDS/IDB, Vol 2.~~
EQUIPMENT MANUFACTURER	EQPMAN	Char~~A~~	1-64	Identifies the manufacturer of a piece of equipment. Repeating.	Known name of an equipment manufacturer(s).
EQUIPMENT NOMENCLATURE	EQPNOMEN	Char~~A/ N~~/ Special	1-45	Nomenclature used to identify a piece of equipment. Repeating.	As defined in MIDB Element Database Design Dictionary. User defined free text.~~DDB-2600-4040-YR, Defense Intelligence Equipment Index (U). Ref MIIDS/IDB, Vol 2~~
OB TYPE	OBTYPE	Char~~A~~	1	Indicates the type of order of battle associated with the target element, according to the MIDB~~MIIDS/IDB~~. Repeating.	See Table 10-9
OBJECT VIEW	OBJVIEW	Char~~A~~	3-9~~6~~	View of the object.	See Table 10-10
TYPE ORDER OF BATTLE	ORDBAT	Char~~A/ N~~	3	Indicates the type of order of battle associated with the equipment ~~target element~~, according to EARS-1.1~~NERCM and DIAM 57-5-4~~. Repeating.	See Table 10-16

Table 4-6 SPIA Event Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
EVENT NAME	EVENTNAME	Char~~A/N/Special~~	1-38	The recognized name of the event. Repeating.	Any event name.
EVENT TYPE	EVENTTYPE	Char~~A~~	3-8	Indicates the generic type of event associated with the product. Repeating.	See Table 10-2

Table 4-7 SPIA Person Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
ASSOCIATED COUNTRY	ASSOCTRY	Char~~A~~	2	Identifies the country the person (s) captured in the image is/are associated with. Repeating.	Country codes as defined in ~~DIAM 65-18 and~~ FIPS 10-4~~3~~.
BIRTH DATE	DOB	Char~~N~~	8~~6~~	Identifies the birth date of the person captured in the image. Repeating.	CCYYMMDD~~MMDDYY~~
FIRST NAME	FIRSTNME	Char~~A/N~~	1-28	Identifies the first name(s) of an individual(s) captured in an image. Repeating	User Defined
LAST NAME	LASTNME	Char~~A/N/Special~~	1-28	Identifies the surname of individual(s) captured in an image. Repeating.	User Defined
MIDDLE NAME	MIDNME	Char~~A/N~~	1-28	Identifies the middle name(s) of the individual(s) captured in an image. Repeating.	User Defined.

Appendix I
PERMISSIBLE VALUES

This appendix contains the permissible or domain values for data elements in Tables 4-1 through 4-7 where the list of values is lengthy. Table 10-1 maps the data elements to specific tables in this Appendix. The specific data element value tables provide the domain values for the element, and define those values when necessary. Domain value sources and comments are included as applicable.

Table 10-1 Data Element to Table Mapping

ELEMENT	ABBR	TABLE
EVENT TYPE	EVENTTYPE	Table 10-2
IMAGE CATEGORY	ICAT	Table 10-3
IMAGE ELLIPSOID	IMELLIP	Table 10-4
IMAGE PROCESSING LEVEL CODE	PREPROC	Table 10-5
IMAGE PROJECTION SYSTEM	IPROJ	Table 10-6
IMAGE REPRESENTATION	IREP	Table 10-7
LICENSE	LIC	Table 10-8
OB TYPE	OBTYPE	Table 10-9
OBJECT VIEW	OBJVIEW	Table 10-10
OTHER CONDITIONS	OTHERCOND	Table 10-11
PLATFORM IDENTIFICATION	PLATID	Table 10-12
PRODUCT SHORT TITLE	PRODSNME	Table 10-13
SENSOR MODE	SENSMODE	Table 10-14
SENSOR NAME	SENSNAME	Table 10-15
TYPE ORDER OF BATTLE	ORDBAT	Table 10-16

Table 10-2 EVENT TYPE (EVENTTYPE) Values

VALUE	DEFINITION	SOURCE/COMMENTS
AIRDEF	Air Defense Operations	MIDB Data Dictionary
AIROPS	Air Operations	
CBW	Chemical Or Biological Warfare	
CIVIL	Civilian	
COMMO	Communications	
DIS	Disaster	
ECON	Economic	
EXPOPS	Expeditionary Or Amphibious Operations	
GNDOPS	Ground Operations	
HUMAN	Humanitarian	
JOINT	Joint Or Combined Operations	
MILEX	Military Movement/ Exercise	
MILMOV	Military Movement/ Operations	
NAT	Natural	
NAVOPS	Naval Operations	
NUC	Nuclear	
PEACE	Peacekeeping	
POL	Political	
SPACE	Space	
TERR	Terrorist Activity	
Z	Inconclusive Analysis	

Table 10-3 IMAGE CATEGORY (ICAT) Values

VALUE	DEFINITION	SOURCE/COMMENTS
BP	Black/White Frame Photography	NITF and EARS 1.1
CAT	CAT Scans	
CP	Color Frame Photography	
DTEM	Elevation Models	
EO	Electro-optical	
FL	Forward Looking Infrared	
FP	Fingerprints	
HR	High Resolution Radar	
HS	Hyperspectral	
IR	Infrared	
LEG	Legend	
LOCG	Location Grids	
MAP	Raster Maps	
MATR	Other types of matrix data	
MRI	Magnetic Resonance Imagery	
MS	Multispectral	
OP	Optical	
PAR	Color Patch	
RD	Radar	
SAR	Synthetic Aperture Radar	
SARIQ	SAR Radio Hologram	
SL	Side-Looking Radar	
TI	Thermal Infrared	
VD	Video	
VIS	Visible imagery	
XRAY	X-rays	

Table 10-4 IMAGE ELLIPSOID CODE (IMELLIP) Values

VALUE	DEFINITION	SOURCE/COMMENTS
AAM	Modified Airy	DIGEST, Part 3, Table 8-1
AAY	Airy	
AUN	Australian National	
BES	Bessel 1841	
CLE	Clarke 1858	
CLJ	Clarke 1880	
CLK	Clarke 1866	
EVE	Everest	
EVM	Modified Everest	
FAM	Modified Fisher 1960	
FIS	Fisher	
GRE	Geodetic Reference System 1967	
GRS	Geodetic Reference System 1980	
HEL	Helmert 1906	
HOU	Hough	
IDN	Indonesian 1974	
INT	International	
KRA	Krassovsky	
SAM	South American 1969	
WAL	Walbeck	
WGA	World Geodetic System 1960	
WGB	World Geodetic System 1966	
WGC	World Geodetic System 1972	
WGD	World Geodetic System 1984	

Table 10-5 IMAGE PROCESSING LEVEL CODE (PREPROC)Values

VALUE	DEFINITION	SOURCE/COMMENTS
0	Systems corrections only and raw metadata extraction from telemetry stream. Applied to all imaging events of a given sensor uniformly independent of where the data were collected.	Earth Imaging Working Group (EIWG) of the Open GIS Consortium (OGC)
1	Metadata refined and additions made. Radiometric and geometric calibrations may be undertaken using external information.	
1A	Geographic formatting using the sensor system's geographic knowledge. The image pixels values are not adjusted, but based on internal system information, metadata values may change or new metadata is added.	
1R	Radiometric adjustment using the sensor system's radiometric calibration data measurements.	
1G	Photogrammetric geopositioning of the sensor data using external geo-referenced information.	
1N	Non-mapping product that may be used for many different purposes. In most cases, not used for cartographic or GIS-Mapping purposes.	
2R	Radiometric modification of Level 1 data using external information.	
2G	Geometric transformation of sensor data based on the results of photogrammetric geopositioning. This level includes rectification and orthorectification.	
2T	Terrain compilation from Level 1G data.	
2F	Feature compilation and/or thematic classification from Level 1G data.	
3F	Feature extraction and/or thematic classification from Level 2 data products.	
3T	Terrain extraction from the Level 2T data products. Examples would include the generation of a regular grid of elevation posts interpolated from and irregular Level 2T network of elevation posts, and the generation of surface polynomials, tessellated patches, or contours from Level 2T values.	
4F	Feature symbolization - generation of map symbols, feature color assignment, etc., from Level 2 compiled and Level 3 extracted features.	
4T	Terrain symbolization - generation of symbolized terrain displays, such as shaded relief displays, wire frame models, tagged and/or colorized contours.	

Table 10-6 IMAGE PROJECTION SYSTEM (IPROJ)Values

VALUE	DEFINITION	SOURCE/COMMENTS
AC	Albers Conical Equal Area	DIGEST, Part 3, Table 6-1
AK	Azimuthal Equal Area	
AL	Azimuthal Equal Distant	
GN	Gnomic	
LE	Lambert Conformal Conic	
LJ	Lambert Equal Area	
MC	Mercator	
OC	Oblique Mercator	
OD	Orthographic	
PG	Polar Stereographic	
PH	Polyconic	
RB	Hotline Olique Mercator	
RC	Relative Coordinates	
SD	Oblique Stereographic	
TC	Transverse Mercator	

Table 10-7 IMAGE REPRESENTATION (IREP)Values

VALUE	DEFINITION	SOURCE/COMMENTS
MONO	Monochrome	NITF
RGB	Red, Green, Blue True Color	
RGB/LUT	Mapped Color	
MULTI	Multiband Imagery	
YCbCr601	Special Usage	See NITF for details.

Table 10-8 LICENSE (LIC) Values

VALUE	DEFINITION	SOURCE/COMMENTS
0	TIER 1	
1	TIER 2	
2	TIER 4	
3	DOD	Department of Defense
5	NIMA	National Imagery & Mapping Agency
6	CIA	Central Intelligence Agency
7	DIA	Defense Intelligence Agency
8	ACOM	Atlantic Command
9	CENTCOM	Central Command
10	EUCOM	European Command
11	PACOM	Pacific Command
12	SOUTHCOM	Southern Command
13	SOCOM	Special Operations Command
14	SPACECOM	Space Command
15	STRATCOM	Strategic Command
16	TRANSCOM	Transportation Command
17	NAVY	US Navy
18	AF	US Air Force
19	MARINES	US Marine Corps
20	ARMY	US Army
21	NSA	National Security Agency
22	IC	Intelligence Community
23	FG	Federal Government - Title 50

Table 10-9 OB TYPE (OBTYPE)Values

VALUE	DEFINITION	SOURCE/COMMENTS
A	Air Force	MIDB Data Dictionary
B	IDB Cross Pinnacle	
C	Civilian	
E	Net	
F	SMOB	
G	Army	
H	DMOB	
J	SOB	
K	TMOB	
N	Navy	
P	Para-Military	
S	Strategic Forces	
X	ADOB	

Table 10-10 OBJECT VIEW (OBJVIEW)Values

VALUE	DEFINITION	SOURCE/COMMENTS
RIGHT		
LEFT		
TOP		
BOTTOM		
FRONT		
REAR		

Table 10-11 OTHER CONDITIONS (OTHERCOND)Values

VALUE	DEFINITION	SOURCE/COMMENTS
SN	Snow	EARS-1.1
SH	Shadow	
OL	Degrading Obliquity	
SD	Semidarkness	
BL	Blurred Image	
TR	Terrain Masking	
HD	Heavy Smoke or Dust	
RN	Rain	
NT	Night	Added

Table 10-12 PLATFORM IDENTIFICATION (PLATID) Values

VALUE	DEFINITION	SOURCE/COMMENTS
ADEOS-1		Japanese Government
ALMAZ 1B		Russian Government
ALOS		Japanese Government
ALOS-PASAR		Japanese Government
AVSAT 1		Astrovision, Inc.
CBERS 1		Brazil - China Governments
CBRES-2		Brazil - China Governments
CLARK		USG
CRSS 1		Space Imaging, Inc.
CRSS 2		Space Imaging, Inc.
EARLYBIRD 1		EarthWatch, Inc.
EARLYBIRD 2		EarthWatch, Inc.
ENVISAT-ASAR		European Space Agency
EO-1		USG
EOS AM 1		USG
EROS 1		Israel Government
EROS 2		Israel Government
ERS-1		European Space Agency
ERS-2		European Space Agency
GEROS		GER Corporation
IRS-1A		Antrix Corporation, India
IRS-1B		Antrix Corporation, India
IRS-1C		Antrix Corporation, India
IRS-1D		Antrix Corporation, India
IRS-P4		India Government
IRS-P5		India Government
IRS-P6		India Government
JERS-1		Japanese Government
KOMPSAT		South Korean Government
LANDSAT 4		USG
LANDSAT 5		USG
LANDSAT 7		USG
LEWIS		USG
LSAR		USG
MTI		USG
NOAA-10		USG
NOAA-11		USG
NOAA-12		USG
ORBVIEW 1		Orbimage Corporation
ORBVIEW 2		Orbimage Corporation

Table 10-12 PLATFORM IDENTIFICATION (PLATID)Values (Cont.)

VALUE	DEFINITION	SOURCE/COMMENTS
P-1		GDE, Inc.
PRIRODA-MIR MOMS-2P		German and Russian Governments
QUICKBIRD 1		EarthWatch, Inc.
QUICKBIRD 2		EarthWatch, Inc.
RADARDAT 1 SAR		Canadian Government
RADARDAT 2 SAR		Canadian Government
RESOURCE 21		Boeing Space, Inc.
ROCSAT		Taiwan Government
SEASTAR		Orbimage Corporation
SIR-C-XSAR		USG
SPIN 2		Russian Government
SPOT 1		French Government
SPOT 2		French Government
SPOT 3		French Government
SPOT 4		French Government
SPOT 5		French Government
WARFIGHTER		USG

Table 10-13 PRODUCT SHORT NAME (PRODSNME) Values

VALUE	DEFINITION	SOURCE/COMMENTS
ADRI	ADRI Broad Area Coverage	Joint Interoperability Working Group (CMP SIPA)
APG	Aimpoint Graphic	
AESB	Amphibious Exercise Study Book	
AIAS	Amphibious Intelligence Area Study	
ANMS	Amphibious/Noncombatant Evacuation Order (NEO) Misc	
ANGLY	Anaglyph	
ANIMG	Annotated Image, to include Annotated SIDS, Annotated Print, Point Tgt Msn Spt Image, Area Cvg Msn Spt Image, RFI Spt Image, Range Tng/Exer Imagery, Mosaics, Image Map	
AWSIMG	Advanced weapon System SPT Image	

Table 10-13 PRODUCT SHORT NAME (PRODSNME) Values (Cont.)

VALUE	DEFINITION	SOURCE/COMMENTS
BIIB	Basic Imagery Interpretation Brief	
BIIR	Basic Imagery Interpretation Report	
BRFBD	Briefing Boards	
BRFIMG	HQ ACC, 480IG Intel Briefs	
BTG	Basic Target Graphic	
CSP	Contingency Support Package	
DAHI	Daily Highlights	
DEPPKG	Pre-Deployment Package	
DIPFAC	Diplomatic Facilities Package	
DPPRG	DPP Reference Package	
DTM	Digital Target Material	
SAO	Fleet Special Activities Office (SAO) Package	
FACEMB	Facility/Embassy Graphic	
GCGSD	Global Command and Control System (GCCS) Graphic	
GRG	Gridded Reference Graphic	
HHIMG	Hand Held, to include Ground Photo	
HTG	Hardened Target Graphic	
IAB	Imagery Analysis Brief (Mini-Board)	
IAM	Imagery Analysis Memorandum	
IAN	Imagery Analysis Note	
IAR	Imagery Analysis Report	
IES	Imagery Executive Summary	
ISP	Imagery Support Package	
ITG	Infrared Target Graphic	
ITT	Interactive Training Tool	
IPIR	Initial Phase Interpretation Report	
Keys	IA Keys	
LDB	LANT Daily Brief	
LNDRW	Line Drawing	

Table 10-13 PRODUCT SHORT NAME (PRODSNME) Values (Cont.)

VALUE	DEFINITION	SOURCE/COMMENTS
MAP	Maps	
MSI	Multi-Spectral Imagery Products	
MSSIM	SDRI/ADRG/DTED Cells	
NBRG	National Basic Reference Guide	
NISH	NEO Intel Support Handbook	
NEOHBK	NEO Intel Support Handbook (SOUTHCOM)	
OSP	Operations Support Package	
PEPIR	Preliminary Exploitation Phase Interpretation Report	
PL	Plotsheet	
QRG	Quick Reference Guide	
RECIMG	Recognition Guides	
RECSLD	Recognition Slides	
RTG	Radar Target Graphic	
STG	Seasonal Target Guide	
SAO	Special Activities Office (SAO) Package	
SIIR	Special Imagery Interpretation Report	
SSSG	Special Support Section Graphic	
SUPIR	Supplemental Phase Interpretation Report	
TIP	Target Intelligence Package	
TPRPT	Topic Report (Data Base Entry Message)	
TRTG	Training Target Graphic	
TSP	Target Support Package	
TTG	Tactical Training Graphic	
UEIMG	Unexploited Image	
$AAXXXXXXX	User Site Unique (where $ is the special code indicating user site unique product, AA is producer code, and 7X is site unique PSN)	
WAGSD	Warrior graphic Situation Display	

Table 10-14 SENSOR MODE (SENSMODE) Values

VALUE	DEFINITION	SOURCE/COMMENTS
WHISKBROOM		
PUSHBROOM		
FRAMING		
SPOT		
SWATH		
TBD		

Table 10-15 SENSOR NAME (SENSNAME) Values

VALUE	DEFINITION	SOURCE/COMMENTS
TM	MSI sensor on Landsat 4 and 5	EOSAT, Inc.
ETM	MSI sensor on Landsat 7	NASA
MSS	MSI sensor on Landsat 3 and 4	EOSAT, Inc.
HRV	MSI sensor on SPOT 1 -3	SPOT Image, Inc.
HRVIR	MSI sensor on SPOT 4	SPOT Image, Inc.
LISS I	MSI sensor on IRS-1A and 1B	Indian Space Agency
LISS II	MSI sensor on IRS-1A and 1B	Indian Space Agency
LISS III	MSI sensor on IRS-1C and 1D	Indian Space Agency
WiFS	MSI wide area sensor on IRS-1C and 1D	Indian Space Agency
OPS	MSI sensor on JERS-1	Japan Space Agency
EOS-AMI	MSI sensor on ASTER	NASA, EOS Program
AVHRR	MSI sensor on NOAA weather satellites	NOAA
HSI	Hyperspectral sensor on Lewis	NASA
MISR	MSI sensor on EOS-AM	NASA, EOS Program
MODIS-N	MSI sensor on EOS-AM1	NASA, EOS Program
VIRS	MSI sensor on TRMM	JPL and NASA
MSI	MSI sensor on various commercial platforms	EarthWatch, Space Imaging, and other potential vendors
PAN	Panchromatic sensor on various commercial platforms	EarthWatch, Space Imaging, and other potential vendors
COMDEV	SAR sensor on RADARSAT	Canadian RADARSAT Program
SAR	SAR sensor	
HYDICE	MSI sensor	Navy

Table 10-16 TYPE ORDER OF BATTLE (ORDBAT)Values

VALUE	DEFINITION	SOURCE/COMMENTS
MIS	Missile and Related Equipment	EARS-1.1
AOB	Aircraft and Related Equipment	
NVL	Naval and Merchant Vessels	
GFW	Ground Force Weapons and Equipment	
ELC	Communications, Radar, and other Electronic Equipment	
BCW	Biological and Chemical Warfare Equipment	
AAA	Anti-Aircraft and Related Equipment	
NUC	Nuclear Related Equipment	
DMY	Objects fabricated and installed for the purpose of deception	
OBJ	Objects and equipment not included in the above categories, such as crates, rolling stock, miscellaneous support equipment	

Appendix II
ONI AMIDSHIPS DATA ELEMENTS

This appendix contains metadata on the data elements needed to support the ONI Amidships hand-held imagery program. This set of data elements has been placed in an appendix because of their very limited and specific application to ONI and its Image Product Library. Consequently these elements are not required to be considered for SPIA compliance and related development efforts except as they pertain to the ONI program. In this appendix, Table 11-1 contains the basic metadata for the ONI Amidships program. Lengthy domain values are provided in following tables as indicated in the Permissible Values column of Table 11-1.

Table 11-1 ONI Amidships Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
SHIP AIRCRAFT FACILITIES	SHPACFAC	Char	1	Identifies existence of a designated helicopter landing place or a place to lower supplies and/or personnel from a helicopter.	See Table 10-15
SHIP BEAM	SHPBEAM	Int	3	Maximum width in meters of a vessel.	001 to 999.
SHIP CALL SIGN	SHPCS	Char	10	ID code given a vessel for use in international communications.	User defined.
SHIP CATEGORY	SHPCAT	Char	3	Indicates the ship category.	As defined in the ONI NID.
SHIP DEADWEIGHT TONNAGE	SHPDWT	Int	6	The maximum weight in tons of a vessel fully loaded with crew, fuel and cargo.	000001-999999.
SHIP FORECASTLE	SHPFCSL	Char	1	Indicates whether the forecastle of a vessel is elevated above the main deck.	Y - Yes, N - No
SHIP FUNNEL LOCATION	SHPFNLLCN	Char	1	The location of the funnel(s) on the ship.	See Table 10-16
SHIP GROSS TONNAGE	SHPGWT	Int	6	The gross registered tonnage of a vessel.	000001 to 999999.
SHIP HATCHES	SHPHTCH	Int	2	The total number of hatches seen on the deck of vessel capable of loading or unloading cargo.	00 to 99.
SHIP HULL TYPE	SHPHLTP	Char	2	ONI assigned hull type designator.	See Table 10-17
SHIP IDENTIFIER	SCONUM	Char	6	The unique identifier for each vessel recorded in the ONI NID.	As defined in the ONI NID. Nnnnnn or Mnnnnn.

Table 11-1 ONI Amidships Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
SHIP LENGTH	SHPLNG	Int	4	The length in meters of a vessel.	0001 to 9999.
SHIP OPERATIONAL STATUS	SHPSTAT	Char	1	The operational status of a vessel.	A - Active, I - Inactive
SHIP REGISTER NUMBER	LRNUM	Char	7	The permanent identification number assigned by Lloyds's Register of Shipping.	0000001 through 9999999.
SHIP SATCOM ANTENNA	SHPSCANT	Char	1	Indicates the existence of a satellite communication radome.	Y - Yes, N - No
SHIP SUPERSTRUCTURE LOCATION	SHPSSLCN	Char	2	The location of vessel's main superstructure.	See Table 10-18
SHIP TWIN ABREAST FUNNELS	SHPTAF	Char	1	Indicates the existence of two main engine funnels side by side.	Y - Yes, N - No
SHIP TYPE	SHPTP	Char	3	Indicates the ship type.	As defined in the ONI Naval Intelligence Database (NID). 100 through 830.
SHIP TYPE DESCRIPTION	SHPTPDESC	Char	1-60	A textual description of the ship type.	As defined in the ONI NID.
SHIP UPRIGHT SEQUENCE	SHPURSEQ	Char	1	Appearance and sequence of upright structures along the vessel from bow to stern. Repeating.	See Table 10-19

Table 11-2 SHIP AIRCRAFT FACILITIES (SHPACFAC) Values

VALUE	DEFINITION	SOURCE/COMMENTS
X	Unknown	
H	Hanger	
D	Helo Deck	
S	"H" Labeled Helo Spot	
P	Painted Circle or Spot without "H"	
O	None	

Table 11-3 SHIP FUNNEL LOCATION (SHPFNLCN) Values

VALUE	DEFINITION	SOURCE/COMMENTS
0	No Funnel	
1	Forward	
2	Amidships	
3	Aft	
4	Fore and Aft	
5	Fore and Amidships	
6	Amidships and Aft	

Table 11-4 SHIP HULL TYPE (SHPHLTP) Values

VALUE	DEFINITION	SOURCE/COMMENTS
1	A superstructure exceeding one-third of the overall length of the ship with one or more funnel locations and a cruiser stern.	
2	A superstructure exceeding one-third of the overall length of the ship with one or more funnel locations and a counter stern.	
3	A ship with a single weather deck extending from bow to stern, a funnel(s) located amidships and a cruiser stern.	
4	A ship with a single weather deck extending from bow to stern, a funnel(s) located amidships and a counter stern.	
5	A ship with a raised bow, a funnel(s) located amidships and a cruiser stern.	

Table 11-4 SHIP HULL TYPE (SHPHLTP) Values (Cont.)

VALUE	DEFINITION	SOURCE/COMMENTS
6	A ship with a raised bow, a funnel(s) located amidships and a counter stern.	
7	A ship with a raised amidships, a funnel(s) located amidships and a cruiser stern.	
8	A ship with a raised amidships, a funnel(s) located amidships and a counter stern.	
9	A ship with a raised bow, a raised amidships, a funnel(s) located amidships and a cruiser stern.	
10	A ship with a raised bow, a raised amidships, a funnel(s) located amidships and a counter stern.	
11	A ship with a raised bow, a raised stern, a funnel(s) located amidships and a cruiser stern.	
12	A ship with a raised bow, a raised stern, a funnel(s) located amidships and a counter stern.	
13	A ship with a raised bow, a raised amidships, a raised stern, a funnel(s) located amidships and a cruiser stern.	
14	A ship with a raised bow, a raised amidships, a raised stern, a funnel(s) located amidships and a cruiser stern.	
15	A ship with a raised bow, a long continuous raised amidships, a raised stern, a funnel(s) located amidships and a cruiser stern.	
16	A ship with a raised bow, a long continuous raised amidships, a raised stern, a funnel(s) located amidships and a counter stern.	
17	A ship with a raised bow extending into and including amidships with or without a raised stern, a funnel(s) located amidships and a cruiser stern.	
18	A ship with a raised bow extending into and including amidships with or without a raised stern, a funnel(s) located amidships and a counter stern.	
19	A ship with a raised bow, a raised amidships extending into and including the stern, a funnel(s) located amidships and a cruiser stern.	

Table 11-4 SHIP HULL TYPE (SHPHLTP) Values (Cont.)

VALUE	DEFINITION	SOURCE/COMMENTS
20	A ship with a raised bow, a raised amidships extending into and including the stern, a funnel(s) located amidships and a cruiser stern.	
21	A ship with a single weather deck extending from bow to stern, a funnel(s) located amidships, a split superstructure and a cruiser stern.	
22	A ship with a single weather deck extending from bow to stern, a funnel(s) located amidships, a split superstructure and a counter stern.	
23	A ship with a raised bow, a funnel located amidships, a split superstructure and a cruiser stern.	
24	A ship with a raised bow, a funnel located amidships, a split superstructure and a counter stern.	
25	A ship with a raised amidships, a funnel(s) located amidships, a split superstructure and a cruiser stern.	
26	A ship with a raised amidships, a funnel(s) located amidships, a split superstructure and a counter stern.	
27	A ship with a raised bow, a raised amidships, a funnel(s) located amidships, a split superstructure and cruiser stern.	
28	A ship with a raised bow, a raised amidships, a funnel(s) located amidships, a split superstructure and counter stern.	
29	A ship with a raised bow, a raised amidships, a funnel(s) located amidships, a split superstructure and a cruiser stern.	
30	A ship with a raised bow, a raised stern, a funnel(s) located amidships, a split superstructure and a counter stern.	
31	A ship with a raised bow, a raised stern, a funnel(s) located amidships, a split superstructure and a cruiser stern.	
32	A ship with a raised bow, a raised amidships, a raised stern, a funnel(s) located amidships, a split superstructure and a counter stern.	
33	A ship with a raised bow, a long continuous raised amidships, a raised stern, a funnel(s) located amidships, a split superstructure and a cruiser stern.	
34	A ship with a raised bow, a long continuous raised amidships, a raised stern, a funnel(s) located amidships, a split superstructure and a counter stern.	

Table 11-4 SHIP HULL TYPE (SHPHLTP) Values (Cont.)

VALUE	DEFINITION	SOURCE/COMMENTS
35	A ship with a raised bow extending into and including amidships with or without a raised stern, a funnel(s) located amidships, a split superstructure and a cruiser stern.	
36	A ship with a raised bow extending into and including amidships with or without a raised stern, a funnel(s) located amidships, a split superstructure and a counter stern.	
37	A ship with a raised bow, a raised amidships extending into and including the stern, a funnel(s) located amidships, a split superstructure and a cruiser stern.	
38	A ship with a raised bow, a raised amidships extending into and including the stern, a funnel(s) located amidships, a split superstructure and a counter stern.	
39	A ship with a single weather deck extending from bow to stern, a funnel(s) located aft and a cruiser stern.	
40	A ship with a single weather deck extending from bow to stern, a funnel(s) located aft and a counter stern.	
41	A ship with a raised bow, a funnel(s) located aft and a cruiser stern.	
42	A ship with a raised bow, a funnel(s) located aft and a counter stern.	
43	A ship with a raised bow, a raised amidships, a funnel(s) located aft and a cruiser stern.	
44	A ship with a raised bow, a raised amidships, a funnel(s) located aft and a counter stern.	
45	A ship with a raised bow, a raised stern, a funnel(s) located aft and a cruiser stern.	
46	A ship with a raised bow, a raised stern, a funnel(s) located aft and a counter stern.	
47	A ship with a raised bow, a raised amidships, a raised stern, a funnel(s) located aft and a cruiser stern.	
48	A ship with a raised bow, a raised amidships, a raised stern, a funnel(s) located aft and a counter stern.	
49	A ship with a raised bow extending into and including amidships, a raised stern, a funnel(s) located aft and a cruiser stern.	

Table 11-4 SHIP HULL TYPE (SHPHLTP) Values (Cont.)

VALUE	DEFINITION	SOURCE/COMMENTS
50	A ship with a raised bow extending into and including amidships, a raised stern, a funnel(s) located aft and a counter stern.	
51	A ship with a raised bow, a raised amidships extending into and including the stern, a funnel(s) located aft and a cruiser stern.	
52	A ship with a raised bow, a raised amidships extending into and including the stern, a funnel(s) located aft and a counter stern.	
53	A ship with a raised amidships, a raised stern, a funnel(s) aft and a cruiser stern.	
55	A ship with a raised stern, a funnel(s) aft and a cruiser stern.	

Table 11-5 SHIP SUPERSTRUCTURE LOCATION (SHPSSLCN) Values

VALUE	DEFINITION	SOURCE/COMMENTS
S0	None	S = Single Superstructure
S1	Forward	
S2	Amidships	
S3	Aft	
S4	Major	
M0	None	M = Multiple Superstructure
M1	Fore/Aft	
M2	Amidships/Aft	
M3	Amidships/Amidships	
M4	Fore/Amidships	
M6	Three or More Superstructures	

Table 11-6 SHIP UPRIGHT SEQUENCE (SHPURSEQ) Values

VALUE	DEFINITION	SOURCE/COMMENTS
M	Mast	
K	Kingpost	
C	Crane	
F	Funnel	
G	Gantry Crane	

Appendix III
CORE VIDEO STANDARD DATA ELEMENTS

This appendix contains the core standard data elements needed to support the video imagery program. This is the standard set of data elements recommended for the prototyping, exchange, and interoperability of video meta data. The core video data set has been placed in an appendix because the video program is still in the developmental stage. The data elements contained in this appendix currently support analog video data; eventually the set will be expanded to include digital video. Further, there is no formal approved requirement to include analog video imagery data in the Imagery Product Libraries (IPL's). Consequently, these elements are not required for SPIA compliance and related development efforts except as they pertain to the video imagery program. Video standard data elements which relate to video stotage, discovery and retrieval will be migrated into the main SPIA once development efforts have established a set of metadata which encompasses digital data and video imagery products are approved for inclusion in the IPL's.

Table 12-1 lists all data elements for the core video analog metadata set. For convenience purposes, the table includes elements already listed in the main SPIA. These elements are indicated by normal font. Changes to the metadata in existing SPIA elements and new data elements proposed for video analog imagery are italicized.

Table 12-1 Core Video Data Elements

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
Mission Data					
MISSION NUMBER	MSNNUM	Char~~A/ N/ Special~~	7	Identifies the mission number assigned to the reconnaissance mission.	As defined by EARS-1.1~~DIAM 57-5-4 or NERCM~~.
PROJECT ID CODE	PROJID	Int~~A~~	2	Identifies collection platform project identifier code.	As defined in EARS-1.1~~DIAM 57-5-4~~, the code may be derived from various DIA reconnaissance program directives or EARS-1-1A~~DIAM 57-5-1~~.
PRODUCT START TIME	*PRODSTRT*	*Char*	*14*	*Video product start date and time in UTC. Accurate to within one second of the acquisition of the first line of the first image.*	*YYYYMMDDHHMMSS*

Table 12-1 Core Analog Video Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
Sensor Data					
Note 1: Sensor position may be expressed by using SENSOR X DIMENSION, SENSOR Y DIMENSION, and SENSOR Z DIMENSION (ECEF Cartesian coordinates) or SENSOR ALTITUDE, SENSOR LATITUDE, and SENSOR LONGITUDE (decimal degrees) or SENSOR ALTITUDE and SENSOR LATLONG (degrees, minutes, seconds)					
SENSOR X DIMENSION	*SENSXDMN*	*Int*	*13*	*Specifies the sensor location along the x axis in Earth Centered, Earth Fixed Cartesian coordinates. Repeating. (See Note 1)*	*±nnnnnnnn.nnn in meters*
SENSOR Y DIMENSION	*SENSYDMN*	*Int*	*13*	*Specifies the sensor location along the y axis in Earth Centered, Earth Fixed Cartesian coordinates. Repeating. (See Note 1)*	*±nnnnnnnn.nnn in meters*
SENSOR Z DIMENSION	*SENSZDMN*	*Int*	*13*	*Specifies the sensor location along the z axis in Earth Centered, Earth Fixed Cartesian coordinates. Repeating. (See Note 1)*	*±nnnnnnnn.nnn in meters*
SENSOR ALTITUDE	*SENSALT*	*Int*	*5*	*Altitude of sensor. Repeating.(See Note 1)*	*00000 to 99999 in feet MSL*
SENSOR LATITUDE	*SENSLAT*	*Int*	*9*	*Specifies the sensor geographic location in decima degrees of latitude. Repeating.(See Note 1)*	*±dd.ddddd - where "+" is northern hemisphere and "-" is southern hemisphere.*
SENSOR LONGITUDE	*SENSLON*	*Int*	*10*	*Specifies the sensor geographic location in decimal dgrees of longitude. Repeating. (See Note 1)*	*±ddd.ddddd - where "+" is eastern hemisphere and "-" is western hemisphere.*
SENSOR LATLONG	*SENSLTLG*	*Int*	*15*	*Specifies the sensor geographic location in degrees, minutes and seconds of latitude and longitude. Repeating. (See Note 1)*	*ddmmssXdddmmssY where d = degrees, m = minutes, s = seconds of latitude/longitude and X = N or S and Y = E or W.*

Table 12-1 Core Analog Video Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
IMAGE CATEGORY	ICAT	Char~~A~~	8	Identifies the specific category of imagery (often revealing the nature of the collector or intended use). Required for NITFS.	See Table 10-3 *Less VD* *Plus VDEO, VDOP, VDTI, and VDFL*

Table 12-1 Core Analog Video Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
SENSOR MODEL	*SENSMODEL*	*Char*	*4*	*Identifies the name of the sensor model used in capturing the image.*	*TBD*
Note 2: FOCAL LENGTH or FIELD OF VIEW, SENSOR ROLL ANGLE, ANGLE TO NORTH, and sensor depression angle (the inverse of OBLIQUITY ANGLE) are used to reconstruct a trapezoid defining the area covered by the video frame.)					
FOCAL LENGTH	*FOCLNGTH*	*Int*	*5*	*Focal length of lens at time of collection. Repeating. (See Note 2)*	*nnnnnnnnnnnnnn (fixed point) (TBR)* *nnnn.n in millimeters for Video.*
FIELD OF VIEW	*FOV*	*Int*	*3*	*Sensor field of view in degrees. (See Note 2)*	*0 to 180 degrees*
SENSOR ROLL ANGLE	*SENSRANG*	*Int*	*4*	*Specifies the roll angle of the sensor. Repeating. (See Note 2)*	*±180 in degrees*
Image Data					
ANGLE TO NORTH	ANGLETO NORTH	Int~~N~~	3	Angle in degrees from the first row of the image to true north. Required for NITFS if ESD = Y . *(See Note 2)*	000-359
OBLIQUITY ANGLE	OBLANGLE	Int~~N~~	5	Obliquity angle of image expressed in degrees. ~~Accuracy = 0.6 degrees.~~ Required for NITFS. *(See Note 2)*	00.00 to 90.00 *The inverse of sensor depression angle.*

Table 12-1 Core Analog Video Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
CLASSIFICATION	CLASS	Char~~A~~	1	Indicates the classification level of the product. Mandatory across all products. Required for NITFS.	T - TOP SECRET S - SECRET C - CONFIDENTIAL R- RESTRICTED - Non U.S. classification systems only. U - UNCLASSIFIED
DATUM	DATUM	Char~~A~~	3	Identifies the datum of the map used to derive the target coordinates (UTM or GEO). Repeating	Domain values as listed in the DDDS for data element Horizontal-Reference-Datum-Code.~~In accordance with Appendix B, Attachment 10, XI DBDD 08 93 CO Aug 93.~~
IMAGE COORDINATE SYSTEM	ICORDS	Char~~A~~	1	Indicates the geo-referenced coordinate system for the image. Required for NITFS.	G = Geodetic, C = Geocentric, N = None.
Note 3: The geographical center point of a video frame may be defined by FRAME CENTER LATITUDE and FRAME CENTER LONGITUDE (decimal degrees) or FRAME CENTER LATLONG (degrees, minutes, seconds)					
FRAME CENTER LATITUDE	*FRCNTLAT*	*Int*	*9*	*Specifies the video frame center point geographic location in decimal degrees of latitude. Repeating. (See Note 3)*	*±dd.ddddd - where "+" is northern hemisphere and "-" is southern hemisphere.*
FRAME CENTER LONGITUDE	*FRCNTLON*	*Int*	*10*	*Specifies the video frame center point geographic location in longitude. Repeating. (See Note 3)*	*±ddd.ddddd - where "+" is eastern hemisphere and "-" is western hemisphere.*
FRAME CENTER LATLONG	*FRCNLTLG*	*Int*	*15*	*Specifies the video frame center point geographic location in degrees, minutes and seconds of latitude and longitude. Repeating. (See Note 3)*	*ddmmssXdddmmssY where d = degrees, m = minutes, s = seconds of latitude/longitude and X = N or S and Y = E or W.*
FRAME POSITIONAL ACCURACY	*FRPSNACC*	*Int*	*4*	*Accuracy of FRAME CENTER coordinates as a Circular Error Probable (CEP) (50%). Repeating.*	*nnnn in meters*
SLANT RANGE	*SLRNGE*	*Int*	*5*	*Distance from the sensor to the image center point on ground.*	*000000 to 99999 in meters*

Table 12-1 Core Analog Video Data Elements (Cont.)

ELEMENT	ABBR	CHAR TYPE	ELEMENT LENGTH	ELEMENT DESCRIPTION	PERMISSIBLE~~PERMISSABLE~~ VALUES
VIDEO TIME STAMP	*VTMSTP*	*Char*	*8*	*Indicates the time the video was captured and the related frame number. Repeating.*	*Per ANSI/SMPTE 12M-1995 hhmmssff where hh = hour, mm = minute, ss = second, and ff is a unique field associated with the specific instance of hhmmss.*

Appendix IV
SPIA DATA ELEMENT MAPPING

Table 13-1 below lists all SPIA data elements in alphabetical order and maps the element to the Section 4 table where the element is described in full detail.

Table 13-1 SPIA Data Element Mapping

ELEMENT	ABBR	SPIA TABLE
ACCESS ID	ACCESSID	Table 4-2 (Product)
ANGLE TO NORTH	ANGLETO NORTH	Table 4-1 (Image)
ASSOCIATED COUNTRY	ASSOCTRY	Table 4-7 (Person)
ASSOCIATED REPORT	ASSRPT	Table 4-2 (Product)
ASSOCIATED TEXT	ATEXT	Table 4-2 (Product)
AUTHORITY	AUTHORITY	Table 4-3 (Security)
AUTHORITY TYPE	AUTHTYP	Table 4-3 (Security)
BIRTH DATE	DOB	Table 4-7 (Person)
BITS PER PIXEL PER BAND	ABPP	Table 4-1 (Image)
CAMERA SPECS	CAMSPECS	Table 4-1 (Image)
CATEGORY	CAT	Table 4-4 (Target)
CLASSIFICATION	CLASS	Table 4-3 (Security)
CLASSIFICATION REASON	CLASSRSN	Table 4-3 (Security)
CLASSIFICATION SYSTEM	CLASSYS	Table 4-3 (Security)
CLASSIFICATION TEXT	CLASTXT	Table 4-3 (Security)
CLOUD COVER	CLOUDCVR	Table 4-1 (Image)
CODEWORDS	CODEWORDS	Table 4-3 (Security)
COMPLIANCE LEVEL	CLEVEL	Table 4-1 (Image)
COMPRESSION GENERATION	COMGEN	Table 4-1 (Image)
CONTROL	CONTROL	Table 4-3 (Security)
COUNTRY PRODUCED	CTRYPROD	Table 4-5 (Equipment)
COUNTRY CODE	CTRYCD	Table 4-5 (Target)
COUNTRY CODE DESIGNED	CTRYDSN	Table 4-5 (Equipment)
DATUM	DATUM	Table 4-4 (Target)
DECLASSIFICATION TYPE	DECLASTYP	Table 4-3 (Security)
DECLASSIFICATION DATE	DECLASSDTE	Table 4-3 (Security)
DECLASSIFICATION EXEMPTION	DECLASXMP	Table 4-3 (Security)
DOWNGRADE	DWNGRD	Table 4-3 (Security)
DOWNGRADE DATE	DWNDTE	Table 4-3 (Security)

Table 13-1 SPIA Data Element Mapping (Cont.)

ELEMENT	ABBR	SPIA TABLE
EQUIPMENT CODE	EQPCODE	Table 4-5 (Equipment)
EQUIPMENT MANUFACTURER	EQPMAN	Table 4-5 (Equipment)
EQUIPMENT NOMENCLATURE	EQPNOMEN	Table 4-5 (Equipment)
EVENT NAME	EVENTNAME	Table 4-6 (Event)
EVENT TYPE	EVENTTYPE	Table 4-6 (Event)
EXPLOITATION SUPPORT DATA	ESD	Table 4-1 (Image)
FILE CONTROL NUMBER	FCNTLNR	Table 4-3 (Security)
FIRST NAME	FIRSTNME	Table 4-7 (Person)
FM CONTROL NUMBER	FMCONTROL	Table 4-2 (Product)
IMAGE CATEGORY	ICAT	Table 4-1 (Image)
IMAGE COLUMNS	NCOLS	Table 4-1 (Image)
IMAGE COORDINATE SYSTEM	ICORDS	Table 4-1 (Image)
IMAGE DATUM	IDATUM	Table 4-1 (Image)
IMAGE ELLIPSOID	IELLIP	Table 4-1 (Image)
IMAGE GEOGRAPHIC LOCATION	IGEOLO	Table 4-1 (Image)
IMAGE ID	IMAGEID	Table 4-1 (Image)
IMAGE PROCESSING LEVEL CODE	PREPROC	Table 4-1 (Image)
IMAGE PROJECTION SYSTEM	IPROJ	Table 4-1 (Image)
IMAGE REPRESENTATION	IREP	Table 4-1 (Image)
IMAGE ROWS	NROWS	Table 4-1 (Image)
KEYWORD	KEYWORD	Table 4-2 (Product)
LAST NAME	LASTNME	Table 4-7 (Person)
LICENSE	LIC	Table 4-1 (Image)
MAP ID	MAPID	Table 4-2 (Product)
MEAN GSD	MEANGSD	Table 4-1 (Image)
MIDDLE NAME	MIDNME	Table 4-7 (Person)
MISSION NUMBER	MSNNUM	Table 4-1 (Image)
NATIONAL IMAGE INTERPRETABILITY RATING SCALE	NIIRS	Table 4-1 (Image)
NUMBER OF BANDS	NBANDS	Table 4-1 (Image)
OB TYPE	OBTYPE	Table 4-5 (Equipment)

Table 13-1 SPIA Data Element Mapping (Cont.)

ELEMENT	ABBR	SPIA TABLE
OBJECT VIEW	OBJVIEW	Table 4-5 (Equipment)
OBLIQUITY ANGLE	OBLANGLE	Table 4-1 (Image)
OTHER CONDITIONS	OTHERCOND	Table 4-1 (Image)
PAGE/PART NUMBER	PPNUM	Table 4-2 (Product)
PERCENTAGE OF COVERAGE	PERCOVER	Table 4-4 (Target)
PLATFORM IDENTIFICATION	PLATID	Table 4-1 (Image)
PRODUCER CODE	PRODUCERCD	Table 4-2 (Product)
PRODUCER SUBELEMENT	PRODUCERSE	Table 4-2 (Product)
PRODUCT CODE	PRODCODE	Table 4-2 (Product)
PRODUCT CREATE TIME	PRODCRTIME	Table 4-2 (Product)
PRODUCT FILE SIZE	PRODFSIZE	Table 4-2 (Product)
PRODUCT FORMAT	PRODFMT	Table 4-2 (Product)
PRODUCT ID NUMBER	PRODIDNO	Table 4-2 (Product)
PRODUCT SHORT NAME	PRODSNME	Table 4-2 (Product)
PRODUCT TITLE	PRODTITLE	Table 4-2 (Product)
PROJECT ID CODE	PROJID	Table 4-1 (Image)
RELEASE	RELEASE	Table 4-3 (Security)
REQUESTING ORGANIZATION	REQORG	Table 4-2 (Product)
RPC	RPC	Table 4-1 (Image)
SATELLITE TRACK	SATTRACK	Table 4-1 (Image)
SECTION TITLE	SECTITLE	Table 4-2 (Product)
SENSOR MODE	SENSMODE	Table 4-1 (Image)
SENSOR NAME	SENSNAME	Table 4-1 (Image)
SOURCE	SOURCE	Table 4-1 (Image)
SOURCE DATE	SRCDTE	Table 4-3 (Security)
STANDARD RADIOMETRIC PRODUCT	SRP	Table 4-1 (Image)
STEREO ID	STEREOID	Table 4-1 (Image)
SUBJECTIVE DETAIL	SUBDET	Table 4-2 (Product)
SUBJECTIVE QUALITY	SUBQUAL	Table 4-1 (Image)
SUN AZIMUTH	SUNAZ	Table 4-1 (Image)
SUN ELEVATION	SUNEL	Table 4-1 (Image)
TARGET GEOGRAPHIC COORDINATES	TGTGEO	Table 4-4 (Target)
TARGET ID	TGTID	Table 4-4 (Target)
TARGET LATITUDE	TGTLAT	Table 4-4 (Target)
TARGET LONGITUDE	TGTLON	Table 4-4 (Target)

Table 13-1 SPIA Data Element Mapping (Cont.)

ELEMENT	ABBR	SPIA TABLE
TARGET NAME	TGTNAME	Table 4-4 (Target)
TIME OF COLLECTION	TIMECOLL	Table 4-1 (Image)
TOTAL PAGES/PARTS	TPP	Table 4-2 (Product)
TYPE ORDER OF BATTLE	ORDBAT	Table 4-5 (Equipment)